

New PCT National Phase Application  
Docket No. 32860-001100/US

**IN THE ABSTRACT**

Please replace the Abstract with the attached revised  
Abstract located at the end of this document.

**ABSTRACT OF THE DISCLOSURE**

In order to follow the change in concentration of a redox-active substance, potential suitable for a reducing process or oxidation process are applied to the working electrode of a measuring device. The potential of the working electrode is pulsed and measuring phases and relaxation phases are alternately produced, the pulse lengths of the measuring phase and relaxation phase being predetermined in a suitable manner. In this manner, a rapid relaxation of the concentration gradient is forced electrochemically so that the measurement can be carried out on simple transducer arrays. The device includes a transducer array in addition to a suitable potentiostat. The transducer array may include a planar metal substrate on which at least one flexible insulator having a firm connection between the metal surface and the insulator surface is located. The array is generated by suitably structuring the substrate.